Claims

What is claimed is:

1. A cloned and isolated nucleic acid encoding a *Bacillus anthracis* sasp-B protein.

2. The nucleic acid of claim 1 having the nucleic acid sequence shown in Example 6 and identified as NMRI#1

3. The nucleic acid of Claim 1 further comprising the full length coding sequence for said sasp-B protein.

4. A protein having the amino acid sequence of Bacillus anthracis as shown in Example 5.

5. An antibody to the *Bacillus anthracis* sasp-B protein.

6. The antibody of claim 5 wherein said antibody is a monoclonal antibody.

7. A nucleic acid primer that hybridizes specifically to the sasp-B DNA of *Bacillus anthracis.*

8. A nucleic acid probe that hybridizes to the sequence 5' -TAG CAT T – 3" or the complimentary strai thereof.

9. A method for the detection of *Bacillus anthracis* (B.a.) in a sample, comprising the steps of:
a) incubating the sample with amplification primers that hybridize to the B. a. sasp-B gene;
b) amplifying a target sequence between the hybridized primers; and
c) detecting the presence of amplified *B.anthracis* sasp-B gene sequences.

10. The method of claim 8 wherein the method of amplifying the sasp-B gene comprises the use of th polymerase chain reaction.

11. The method of claim 8 wherein the sasp-B gene primers hybridize to the forward and reverse strands of th sequence as shown in Example 6 and identified as NMRI#11.

12. The method of claim 10 wherein the primers comprise the sequences complimentary to sequence BaSPB7.

13. The method of claim 10 wherein the primers comprise the sequence complimentary to sequence BaSPB8.

14. The method of claim 8 wherein said detecting step comprises the step of hybridizing the amplified fragment a probe specific for the *B. anthracis* sasp-B gene.

15. The method of claim 13 wherein said probe comprises the sequence complimentary to TAGCATT.

16. A method for detecting the presence of *B. anthracis* in a sample comprising the step of:
(a) incubating said sample with an antibody to the *B. anthracis* sasp-B protein; and
(b) detecting the binding of said antibody to *B. anthracis* sasp-B protein in the sample.

17. The method of claim 16 wherein said antibody is a monoclonal antibody

18. A cloned and isolated nucleic acid encoding a *B. globigii* sasp-gamma polypeptide.

19. The nucleotide sequence of B. globigii as shown in Fig. 3.

20. A primer which hybridizes specifically to the sequence shown in Fig. 3.

23. A method for the detection of *Bacillus globigii* (B.g.) in a sample, comprising the steps of:
a) incubating the sample with amplification primers that hybridize to the B. g. sasp-gamma gene;
b) amplifying hybridized primers; and
c) detecting the presence of amplified B.g. sasp-gamma gene sequences.